

(19)



JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: **09026550 A**

(43) Date of publication of application: **28 . 01 . 97**

(51) Int. Cl. **G02B 26/10**  
**G02B 13/00**

(21) Application number: **07173658**

(22) Date of filing: **10 . 07 . 95**

(71) Applicant: **RICOH CO LTD**

(72) Inventor: **NARITA MASAKI**  
**NAKAJIMA TOMOHIRO**  
**SHIMURA AKIRA**  
**YAMAZAKI SHUICHI**

(54) **MULTIBEAM SCANNER**

COPYRIGHT: (C)1997,JPO

(57) Abstract:

**PROBLEM TO BE SOLVED:** To provide a multibeam scanner capable of obtaining a desired spot diameter on a surface to be scanned even by the simple adjusting means of a light source part.

**SOLUTION:** This multibeam scanner is constituted of a semiconductor laser array 1 having plural light sources in an array state, a collimating lens 5 making plural light beams from the semiconductor laser array 1 parallel luminous fluxes or nearly parallel luminous fluxes, a scanning means 12 scanning the surface to be scanned 22 with plural light beams, and image formation parts 13 and 14 forming the scanning light beams into an image on the surface 22. In the scanner, a position where the image should be formed in terms of design (desired spot position) exists in dispersion in the depth direction of the image formation positions (spot position) of plural light beams. Namely, the dispersion of the spot diameter is restrained to the minimum on the surface 22 by distributing the spot positions in the depth direction of plural beams to the desired spot position.

